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10/802,456	03/18/2004	Stephen Bennett Elliott		4015

7590 01/30/2007  
Stephen Bennett Elliott  
702 Buffalo Springs Drive  
Allen, TX 75013

EXAMINER
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LUSTUSKY, SARA

ART UNIT	PAPER NUMBER
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3735

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/802,456

Applicant(s)

ELLIOTT, STEPHEN BENNETT

Examiner

Sara Lustusky

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,10-12 and 18 is/are rejected.
- 7) ☒ Claim(s) 2,8,9 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on June 22, 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

The Examiner acknowledges the document submitted by Applicant dated October 30, 2006. The amendments to claims 1, 2, 4-12 and 14-20 are acknowledged, as is the cancellation of claims 3 and 13. Claims 1, 2, 4-12 and 14-20 are pending in the application.

The replacement drawing sheet indicated by the document submitted by Applicant dated October 30, 2006 has not been received.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1B" has been used to designate both the inhalation/exhalation diagram showing time intervals and the inhalation/exhalation diagram showing visual indicators.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "1C" is missing from Figure 1, as mentioned on page 5 of the Specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

**Claim 1** is objected to because of the following informalities: The recitation “relative to a period for a combination of the inhalation phases and exhalation phases having a center frequency” in line 8 of claim 1 should be rewritten to improve clarity. The Examiner suggests -- relative to a period of time having a combination of the inhalation phases and exhalation phases, the combination having a center frequency --. Appropriate correction is required.

***Response to Arguments***

Applicants arguments regarding the objections to the specification, the objections to the claims regarding claim dependency, the claim rejections under 35 U.S.C. 112, second paragraph, and the claim rejections under 35 U.S.C. 101 set forth in the Office Action dated August 22, 2006 were found to be persuasive and therefore the above stated objections and rejections are withdrawn.

Applicant's arguments with respect to the rejection of claims 1-6, 9, 13 and 19 under 35 USC 102(b) as being anticipated by Schreiber; the rejection of claims 1, 3, 4, 6 and 13 under 35 USC 102(b) as being anticipated by Fresquez et al; the rejection of claims 1, 2 and 18 under 35 USC 102(b) as being anticipated by Bourne; the rejection of claims 1 and 10-12 under 35 USC 102(b) as being anticipated by Khalsa; the rejection of claim 14 under 35 USC 103(a) as being unpatentable over Schreiber in view of Constable; and the rejection of claims 1 and 7 under 35 USC 103(a) as being unpatentable over Ashman in view of DeBrouse have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 4, 10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Siever (US 2005/0149144 A1) in view of Bernardi et al. (*BMJ 2001*) (cited in the Office Action dated August 22, 2006).

Siever teaches a method of presenting audible and visual cues to a human for synchronizing a breathing cycle with an external timing reference for purposes of calming a subject suffering from anxiety, panic, depression or post traumatic stress disorder by regulating the human's breathing cycle (as described in paragraph [0047]), the method comprising: generating a human perceptible indication to identify inhalation phases and exhalation phases of the breathing cycle, changes between said inhalation and exhalation phases, progression of said inhalation and exhalation phases in time, and progression of said inhalation phases and exhalation phases relative to a period for a combination of the inhalation phases and exhalation phases having a center frequency ranging from approximately 8.57 seconds to 12 seconds (as described in paragraph [0047] and in claim 15), wherein the period represents the breathing cycling and thus directly corresponds to the heart rate variability cycle, wherein the method further comprises instructing the human to align the breathing cycle with the generated human perceptible indication; wherein generating a human perceptible indication comprises generating an audible indicator including an audible indicator including at least one of an audible pulse, tone

or tick of short duration to signal a change of the breathing cycle from at least one of the inhalation phases to the exhalation phases and the exhalation phases to the inhalation phases (as described in claim 16). While Siever teaches that the above stated method induces feelings of calmness in the human, the chain of physiological reactions to achieve this as a result of regulated breathing is not expressly taught, nor is the incorporation of mantras as audible cues or that of a group setting.

Bernardi et al. teaches that the respiration rate has a direct and unavoidable effect on the heart rate variability cycle, wherein synchronizing respiratory and cardiac rhythms induce feelings of calmness and wellbeing (as described in the conclusion section of the Abstract and in paragraphs 1-4 of the Introduction and in paragraph 3 of the Results), wherein the synchronization of the breathing cycle and the heart rate variability cycle was commonly known in the art at the time of the invention to be associated with the recitation of prayers and mantras according to religious practices and rituals (as described in the Abstract and in paragraph 1 of the Introduction), wherein Bernardi et al. expressly teaches the generation of a human perceptible indicator comprising generating an audible indicator in a group setting to achieve breathing synchronization and consequent group synchronization of the heart rate variability cycle (as described in paragraphs 5-6 of the Introduction and paragraphs 4-5 of the Discussion).

It would have been inherently obvious to one of ordinary skill in the art at the time of the invention that the heart rate variability cycle is synchronized with the breathing cycle in the method of Siever in view of the teachings of Bernardi et al. The feelings of calmness and wellbeing produced by the method of Siever are caused by coherence of the heart rate variability as a result of the regulated breathing cycle (i.e. breathing alone would not produce this effect).

Therefore, although Siever does not expressly teach the physiological chain of reactions resulting from a change in the breathing cycle, it would have been inherently obvious to one of ordinary skill in the art at the time of the invention that the method of Siever induces synchronization of the heart variability cycle as a necessary physiological response required to obtain a calming effect.

It would have been further obvious to one of ordinary skill in the art at the time of the invention to incorporate mantras as audible cues for synchronizing the breathing cycle in a method similar to that of Siever as a religious design choice in order to enhance the psychological and physiological effects of the method in view of the teachings of Bernardi et al. (as described in paragraph 4 of the Introduction and in paragraphs 4-5 of the Discussion of Bernardi et al.) and to employ the method of Siever in a group setting similar to the method of Bernardi et al. in order to efficiently induce calmness in more than one human at a time and as a design choice to incorporate religion traditions and rituals such as communal gatherings which provide at least comfort and psychological support.

**Claims 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Siever (US 2005/0149144 A1) and Bernardi et al. (*BMJ 2001*) as applied to claim 1 above, in view of Schreiber (Patent 6212135 B1).

While the combination of Siever and Bernardi et al. teaches the use of an audible pulse, tone or tick of short duration to signal a change of the breathing cycle from at least one of the inhalation phases to the exhalation phases and the exhalation phases to the inhalation phases (as described in claim 16) as described above, it does not teach the use of an audible signal with a

rapid attack and gradual decay, an audible signal having a frequency modulated tone or an audible indicator consisting of musical notes C, D, E, F, G, A and B played sequentially.

Schreiber teaches a method of using audible and visual indicators to communicate inhalation and exhalation phases of breathing, changes of said phases, progression of said phases in time, and progression of said phases (as described in lines 48-67 of column 2) to a user; wherein the audible indicators may be in the form of a tone or musical score which is frequency modulated to transition from a high pitch to a low pitch and from a low pitch to a high pitch (as described in the embodiment in lines 23-27 of column 7) or may be a pulsed tone (as described in an alternative embodiment in lines 32-35 of column 7); wherein the audible signal may also be in the form of a rapid attack and gradual decay as indicated in one embodiment by the short inhalation cue time and longer exhalation cue time (as described in lines 44-47 of column 8) (as seen in Figure 3); wherein visual indicators comprise lights which increase in number to indicate inhalation and decrease in number to indicate exhalation (as described in lines 56-66 of column 5 and in lines 10-12 and 32-44 of column 6); wherein the user may select from a range of 24 to 85 seconds per breathing cycles (or inhalation-exhalation cycles).

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use an audible signal similar to that of Shreiber as the audible signal in the combination of Siever and Bernardi et al. One of ordinary skill in the art, would have expected the audible signal having a rapid attack and gradual decay or a frequency modulated tone of Shreiber and the audible pulse or tone of the combination of Siever and Bernardi et al. to perform equally because each of these types of audible signals would perform the same function of indicating the inhalation and exhalation phases to a user.



It would have also been an obvious matter of design choice to a person of ordinary skill in the art to use an audible signal consisting of musical notes C, D, E, F, G, A and B as a frequency modulated tone in the method of Siever and Bernardi et al. because Applicant has not disclosed that using these sequential notes provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, would have expected an audible signal including at least one of an audible pulse, tone or tick of short duration as taught by the combination of Siever and Bernardi et al. and Applicant's invention, to perform equally well because each of these types of audible signals would perform the same function of indicating the inhalation and exhalation phases to a user.

**Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Siever (US 2005/0149144 A1) and Bernardi et al. (*BMJ 2001*) as applied to claim 1 above, in view of Khalsa (PGPUB 2002/0051958 A1).

While the method of the combination of Siever and Bernardi et al. teaches that the method is employed in a group setting, as described above, but does not teach that it is used in a "wide area" group setting including internet or television.

Khalsa teaches a method of presenting timed audible and visual cues for synchronizing the breathing cycle reference, wherein these cues may be employed in a group setting and/or a "wide area" group setting (as described in the abstract) (as described in paragraphs [0093]-[0095]) including local, regional, national and global internet, wherein the audible cues are incorporated into mantra repetition for purposes of synchronizing the breathing cycle (as seen in Figures 1, 2, 5C-F, 5P, 8B-D, 8H).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of the combination of Siever and Bernardi et al. and employ it in a “wide area” group setting using internet similar to the method of Khalsa in order to increase the number of participants, thereby increasing the efficiency of the method and to add to the feeling of community and support induced by group activities. It would have been further obvious to one of ordinary skill in the art at the time of the invention to broadcast the method of the combination of Siever and Bernardi et al. over the television or radio as a design choice, as religious programs and religious services were commonly broadcast over the television or radio at the time of the invention in order to simultaneously and conveniently reach as broad an audience as possible.

**Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Siever (US 2005/0149144 A1) and Bernardi et al. (*BMJ 2001*) as applied to claim 1 above, in view of Ashman (GB 2381642 A) and further in view of Gardon-Gordon (The Healing Voice).

The combination of Siever and Bernardi et al. teaches the method of claim 1, wherein the method may be used to synchronize breathing in a religious activities including the practice of reciting mantras during yoga, as described above, but does not teach the use of visual indicators representing numbers 1 through 7 wherein each number has an associated color.

Gardon-Gordon (The Healing Voice) teaches the use of sound, vibration, colors, tones, light and mantras in therapy, religion and history to induce a state of calm in a patient or user. Specifically, Gardon-Gordon teaches that according to religious practices yoga focuses on breathing and on seven distinct spiritual locations on the body known as Chakras, wherein each chakra is numbered and has an associated color such that chakras 1 through 7 sequentially correspond to colors red, orange, yellow, green, blue, indigo and purple (as described in the

Table on page 126 and on pages 57-58, 63, 70, 121-125), wherein these chakras and colors are visualized during each breathing cycle.

Ashman teaches a method of reducing stress using visual cues synchronized with audible cues for practicing meditation on chakra colors, wherein said visual cues comprise colors associated with the chakras (as seen in Figure 1) (as described in lines 5-6 and 19-22 of the abstract, and in claims 1-3), but does not teach the specific colors associated with each chakra.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use chakra colors corresponding to chakras 1 through 7 as the visual indicator in the method of the combination of Siever and Bernardi et al. similar to the use of colors for chakra meditation in the method of Ashman in order to enhance the breathing experience of a religious user in view of the teachings of Gardon-Gordon.

***Allowable Subject Matter***

**Claims 2, 8-9, 14-17 and 19-20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said

human perceptible indication comprises generating an audible indicator by adjusting a musical tempo associated with a music score and incorporating the audible indicator into the music score.

Regarding claim 8, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating an audible signal recitation of numbers 1 through 7 sequentially within the period having the center frequency of 11.76 seconds such that increasing numbers 1 to 7 denote the inhalation phase and decreasing numbers 7 to 1 denote the exhalation phase.

Regarding claim 9, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating an audible signal including musical cues and incorporating the musical cues into musical scores at approximately 5.88 second intervals.

Regarding claim 14, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align

the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating a vertically oriented 13 segment visual indicator to identify the inhalation phases and the exhalation phases of the breathing cycle.

Regarding claim 15, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating a visual indicator including a circular 7 sector visual indicator.

Regarding claim 16, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating a visual indicator including a 14 stage vertically oriented elliptical indicator.

Regarding claim 17, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said

human perceptible indication comprises an audible indicator and visual indicator including indications of numbers 1 through 7 sequentially within the period having the center frequency of 11.76 seconds such that increasing numbers 1 to 7 denote the inhalation phase and decreasing numbers 7 to 1 denote the exhalation phase.

Regarding claim 19, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating an audible indicator including a frequency modulated tone and a recitation of numbers 1 through 7.

Regarding claim 20, none of the prior art of reference teaches or fairly suggests a method comprising generating a human perceptible indication to identify inhalation and exhalation phases of the breathing cycle, changes between and progression of said inhalation and exhalation phases having a center frequency of approximately 11.76 seconds, to instruct a human to align the breathing cycle with the generated human perceptible indication, wherein generating said human perceptible indication comprises generating an audible indicator by post processing at least one existing musical recording to shorten or lengthen a musical tempo associated with the at least one existing musical recording and the insertion of the audible indicator approximately every 5.88 seconds.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

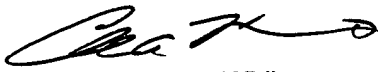
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Lustusky whose telephone number is (571) 272 8965. The examiner can normally be reached on M-F: 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on (571) 272 4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.L.



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